

ABSTRACT

A presently-preferred magnetic bearing comprises a rotor disk having a first plurality of concentric teeth extending from a surface thereof, and a stator disk having a second plurality of concentric teeth extending from a surface thereof. The first and the second plurality of concentric teeth are spaced apart by a gap that permits a primary magnetic flux to flow between the first and the second plurality of concentric teeth substantially in a first direction. The magnetic bearing also comprises a plurality of flux focusing magnets fixedly coupled to at least one of the surface of the rotor disk and the surface of the stator disk. The flux focusing magnets produce a secondary magnetic flux that flows substantially in a second direction substantially opposite the first direction.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100